

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
8 May 2003 (08.05.2003)

PCT

(10) International Publication Number  
WO 03/037751 A1

(51) International Patent Classification: B65D 85/50

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(21) International Application Number: PCT/IL 02/00857

(22) International Filing Date: 28 October 2002 (28.10.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
146218 29 October 2001 (29.10.2001) IL

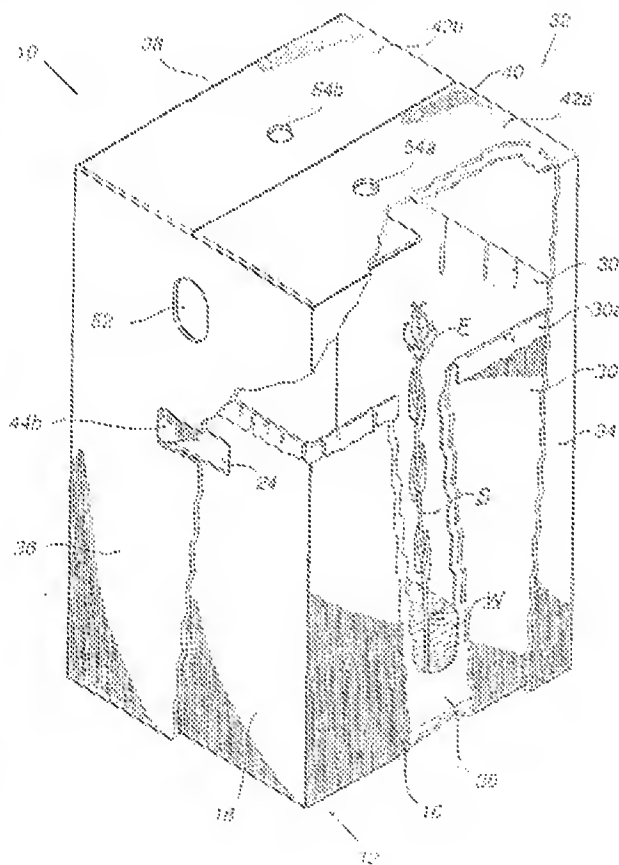
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GR, GM, GU, HK, HN, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PA, PE, PG, PH, PL, PT, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(88) Designated States (regional): ARIPO patent (GH, GM, KE, LB, MW, MZ, SI, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IT, LU, MC, NL, PT, SI, SK, TR), OAPI patent (BF, BJ, GP, GS, CI, CM, GA, GN, GQ, GW, ML, MR, NI, SN, TD, TG).

[Continued on next page]

(84) Title: PACKAGING FOR SHIPPING FLOWERS



(57) Abstract: A packaging assembly (10) for shipping flowers (1) comprising: a first, inner container (12) having a bottom (14) and side walls (16, 18, 20, 22). A lining of water-tight sheet material, preferably in form of plastic bag (30) is placed within the first container (12). A second, outer container (32) having a top (42a, 42b) and side walls (34, 36, 38, 40) is provided, configured to congruently receive thereinside the first container (12). Flaps (44a, 44b, 46a, 46b) located on the side walls (36, 40) of the outer container (32), corresponding to two cut-openings (24, 26) formed on opposite walls (18, 22) of the inner container (12), are used for releasably fastening the second container (32) to the first container (12) so that in the operative shipping state, the packaging (10) can be uncovered by lifting the outer container (32), whereas at destination the outer container (32) can be separated from the inner container (12) by releasing the flaps (44a, 44b, 46a, 46b) and lifting the outer container (32) above and away from the inner container (12).

WO 03/037751 A1



Published:  
with international search report

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## PACKAGING FOR SHIPPING FLOWERS

### FIELD OF THE INVENTION

The present invention relates to packaging for the transportation of flowers.

### 5 BACKGROUND OF THE INVENTION

Transportation of flowers poses the problem of how to keep the flowers as fresh as possible so as to prolong their "shelf-life", namely to preserve the aesthetic appearance when displayed at the market place and thereafter, at the customer's premises.

10 Several methods have been developed and currently applied toward this end. Perhaps the most effective way is to ship the flowers under low temperature. This method, however, is highly expensive and requires special equipment.

It has also been proposed to ship the flowers in containers that included a bucket filled with water in which the flower stems are immersed. This method  
15 suffered at least one drawback in that the water, during handling, e.g. loading onto transport pallets, tended to spill from the bucket, damaging the complete packaging (usually made of corrugated cardboard).

The prime object of the present invention is to improve this last mentioned method.

### 20 SUMMARY OF THE INVENTION

Thus provided according to the invention is a packaging assembly for shipping flowers comprising, in combination: a first, inner container having a bottom and side walls; a lining of water-tight sheet material within the first container; a second, outer container having a top and side walls configured to  
25 congruently receive thereinside the first container; and means for releasably fastening the second container to the first container so that in the operative shipping state, the packaging can be maneuvered by lifting the outer container whereas at destination the outer container can be separated from the inner container by releasing the fastening means and lifting the outer container above  
30 and away from the inner container.

The containers are preferably made of cardboard and are of a square or rectangular shape.

## BRIEF DESCRIPTION OF THE DRAWINGS

These and additional constructional features and advantages of the invention will be more clearly understood in the light of the ensuing description of a preferred embodiment thereof, given by way of example only, with reference to the  
5 accompanying drawing, wherein --

Fig. 1 is a schematic, three-dimensional view of the packaging with peeled-away portions for showing inner parts thereof;

Fig. 2 is an exploded view of the packaging of Fig. 1;

10 Fig. 3 is a cross-sectional view of the packaging of Fig. 1; and

Fig. 4 is a detail showing in cross-section the foldable flaps used to fasten the outer container to the inner container during the shipping and subsequent handling stages.

## 15 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The packaging generally denoted 10 in Fig. 1 comprises an inner container 12, preferably made of corrugated or other type of cardboard as customary in the art of packaging. It could be square or rectangular, of the designer's choosing.

20 As shown in Fig. 2, the inner container 12 has a bottom 14, four side walls 16, 18, 20, and 22, and an open top.

Two cut-out openings, 24 and 26 are formed on opposing walls 18 and 22, respectively, at a pre-determined height exactly conforming to two pairs of corresponding "locking" flaps 44a, 44b, 46a, and 46b, located on walls 36 and 40 of outer container 32, respectively (see Fig. 3).

25 A bag-like receptacle 30 is inserted into container 12, self-supported by its rim 30a folded over the edges of walls 16, 18, 20, and 22 at the top of the open-ended container 12. The container 30 may be made of any suitable water-tight sheet-material, e.g. polyethylene.

30 The structure of the packaging 10 is completed by superimposing outer container 32 over inner container 12, made of the same cardboard material. The container 32 has an open bottom, four side-walls 34, 36, 38, and 40, and a top wall 42, preferably composed of two foldable flaps 42a and 42b.

The measurements of the outer container 32 are such that it can be superimposed over the inner container 12 from above, through the open bottom. The height of the container 32 exceeds that of the container 12 for the purpose described below.

5 The containers 12 and 32 are coupled to each other in order to facilitate the maneuvering of the package 10 as a unitary body. As already mentioned in the exemplified embodiment (see Fig. 3), use is made of two cut-out foldable flaps 44a and 44b at the one side (wall 36), and flaps 46a and 46b at the opposite side (wall 40).

10 Hence, in the assembled state, the flaps 44a, 44b are pushed inwards to extend into the opening 24 of the wall 18, and flaps 46a and 46b are inserted into the opening 26, thereby "locking" the components into a secure unit. Other means of achieving the arrest of the containers 12 and 32 to each other may also be employed.

15 In order to enable the separation of the container 32 from the container 12, the flaps 44a, 44b (and 46a and 46b) are folded outwardly as shown in the broken lines in Fig.4.

The container 32 is formed with an additional opening 52, at one or both of walls 36 and 40, for pouring water into the assembled unit (see below).

20      Optionally, finger holding openings 54a, 54b are formed at the top sections 42a and 42b, respectively.

The packaging 10 is used in the following manner. First, the bag 30 is placed within the container 12, with the upper rim thereof 30a folded back as shown in Fig. 1.

25 The container 32 is then superimposed over the container 12, preferably with some friction that contributes to the unity of the assembly. For extra safety, the flaps 44a, 44b and their counterparts 46a and 46b are folded into the opening 24 and 26 to strengthen the grip between the containers (wall 18 to wall 36 and wall 22 to wall 40).

30 The flaps 42a and 42b (and their underlying flaps if present) are opened for placing the flowers E in the lower container 12, within the bag 30, and the container 32 is closed (e.g. by adhesive tape). The excessive height of the

container 32 is designed in accordance with the length of the flowers  $E$ , which may vary from one shipment to another.

At any stage thereafter, namely before or after air-shipping or prior to continued transport to a final destination, water  $W$ , preferably chilled, can be poured through  
5 opening 52 up to a level, say of 10-20 cm. Anyway, the packaging 10 is ready to be loaded onto transport pallets in the conventional manner.

At the destination, the package is disassembled simply by removing the container 32 (after releasing the flaps 44 and 46), and the container 12 remains as is, serving to display the flowers. The packaging components are readily foldable in  
10 a space-saving form to be shipped back and reused, or disposed of.

While the above description contains many specificities, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of a preferred embodiment. Those skilled in the art will envision other possible variations that are within its scope. Accordingly, the scope of the  
15 invention should be determined not by the embodiment illustrated, but by the appended claims.

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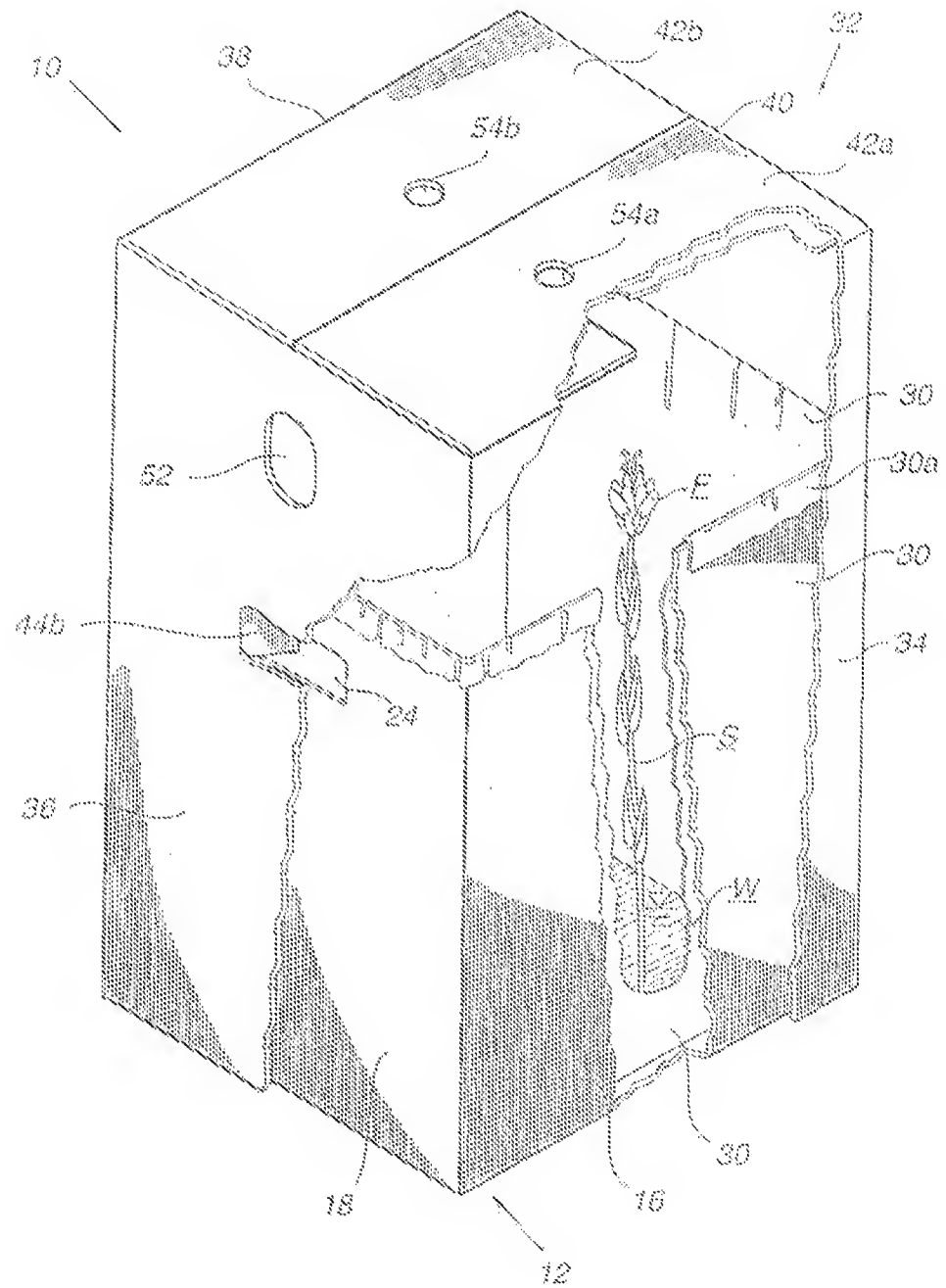
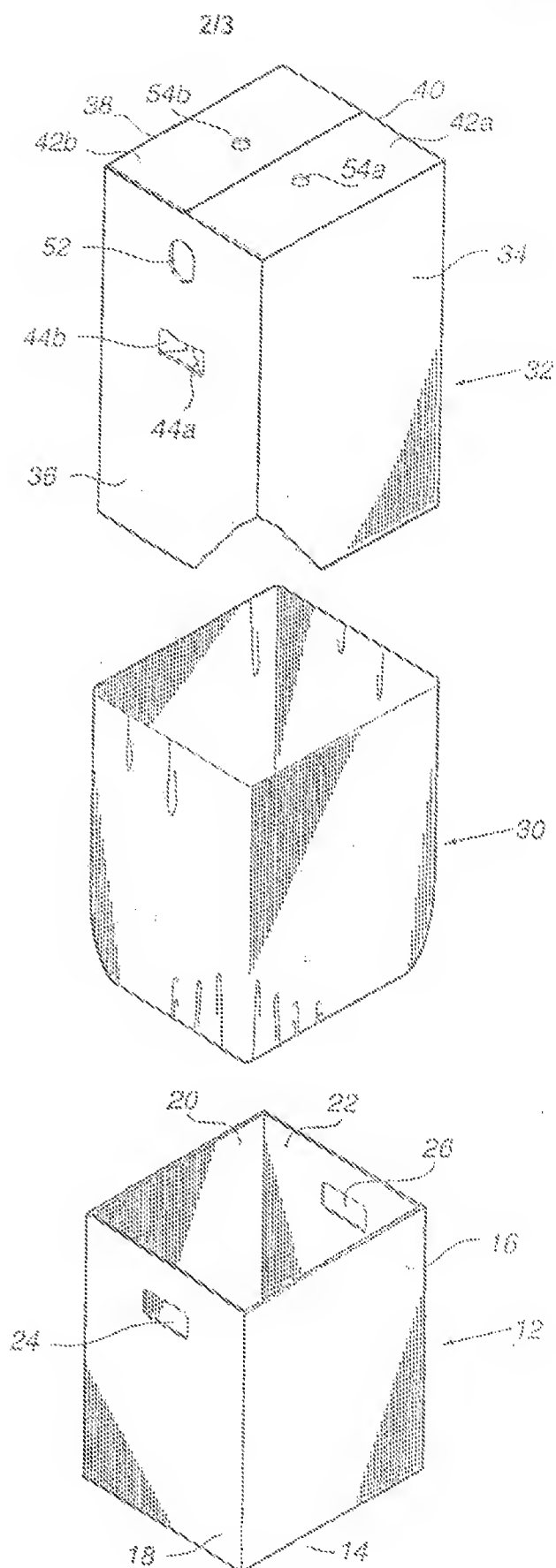


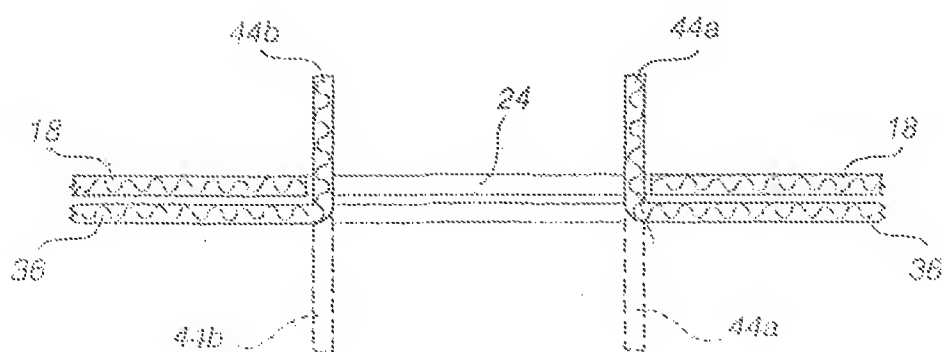
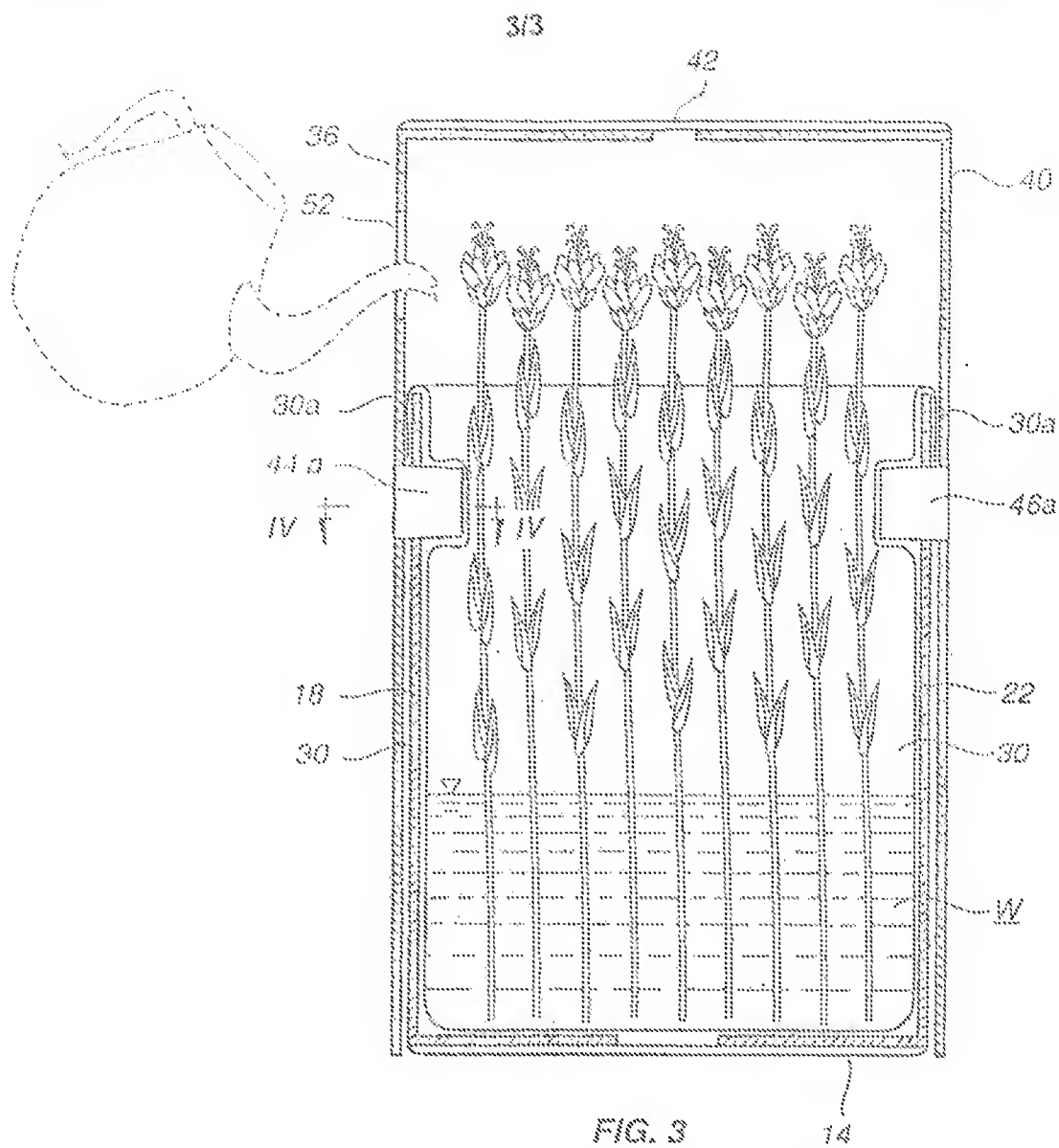
FIG. 1

**WHAT IS CLAIMED IS:**

1. A packaging assembly for shipping flowers comprising, in combination:
  - a first, inner container having a bottom and side walls;
  - a lining of water-tight sheet material within the first container;
  - a second, outer container having top and side walls, configured to congruently receive therein the first container; and
  - means for releasably fastening the second container to the first container so that in the operative shipping state, the packaging can be maneuvered by lifting the outer container, whereas at destination the outer container can be separated from the inner container by releasing the fastening means and lifting the outer container above and away from the inner container.
2. The packaging of Claim 1 wherein the lining consists of a bag placed within the first container.
3. The packaging of Claim 2 wherein the first and second containers are made of cardboard.
4. The packaging of Claim 3 wherein the containers are of a square or rectangular shape.
5. The packaging of Claim 4 wherein there is formed at the upper portion of the second container an opening for pouring water into the first container.
6. The packaging of Claim 1 wherein the fastening means comprise at least two cut-out foldable flaps formed at oppositely located side walls of the second container and adapted to be inserted into correspondingly located cut-out openings formed at the side walls of the first container.
7. The packaging of Claim 1 wherein opening(s) are formed at at least one of the second container wall(s) for pouring water into the packaging assembly.
8. The packaging of Claim 1 wherein the top wall of the second container is formed of two flaps, comprising finger-grip openings.

FIG. 2





## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/IL 02/00857

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B65D05/50 B65D05/50 B65D05/68

According to International Patent Classification (IPC) or to both national classification and IPC:

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevance to claim No.
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Y	-----	2-5
Y	BE 838 383 A (Y. HENIRICHX) 28 May 1976 (1976-05-28) claims 2,3; figures	2-5
X	EP 0 319 445 A (LOS QUEMADOS S A) 7 June 1989 (1989-06-07) column 3, line 39 - line 48 column 4, line 3 - line 15; figures	1,7,8
A	-----	6
A	WO 01 58783 A (KAPPA DE ZEEUW GOLFKARTON B V ; WITHAGEN CORNE (NL); TER BOGT TIM T) 16 August 2001 (2001-08-16) page 0; figures	1
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☒ Former documents are listed in the continuation of box C.☒ Patent family members are listed in annex

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\*3\* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is considered with one or more other prior art documents, such consideration being confined to a person skilled in the art

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Date of the actual completion of the international search

13 February 2003

Date of mailing of the international search report

21/02/2003

Name and mailing address of the ISA

European Patent Office, P.O. Box 1 Patenthaus 2  
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Authorized officer

Zanghi, A

## INTERNATIONAL SEARCH REPORT

Interd  
Application No  
PCI/IL 02/00857

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Information on patent family members

Intern. Int. Application No.

PCT/IL 02/00857

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CORRECTED VERSION

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
8 May 2003 (08.05.2003)

PCT

(10) International Publication Number  
WO 03/037751 A1(51) International Patent Classification: B65D 85/50.  
5160, 5168(72) Inventor: and  
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(21) International Application Number: PCT/IL02/00257

(22) International Filing Date: 28 October 2002 (28.10.2002)

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Aviv (IL).

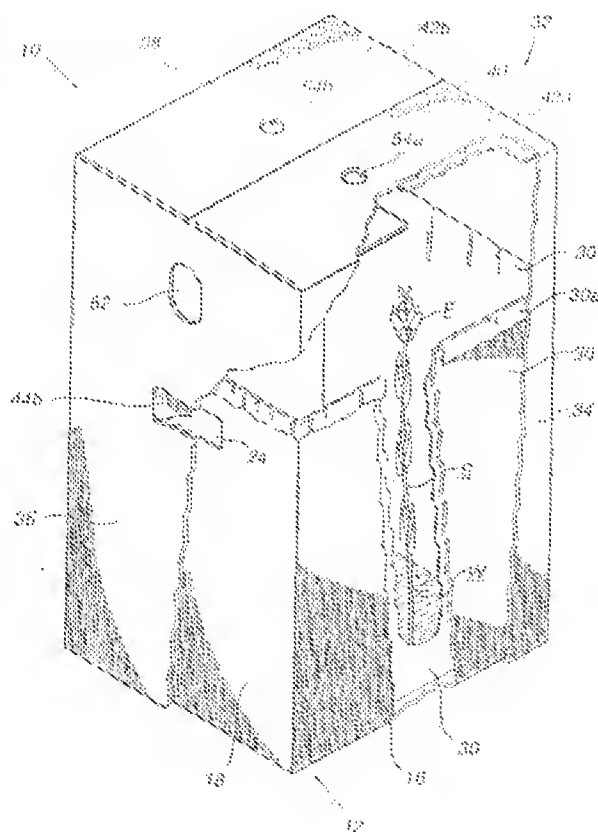
(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
[IL218] 29 October 2001 (29.10.2001) IL(71) Applicant (for all designated States except US): FLOW-  
ERS DIRECT LTD. [IL/IL]; Park Ussisa Aviv, 38100 In-  
dustrial Estate Haich Tefar (IL).(31) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EG, ES, FI, GB, GD, GE, GR,  
GM, GU, HK, HN, HU, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
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RU, SD, SE, SG, SI, SK, SL, TD, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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(54) Title: PACKAGING FOR SHIPPING FLOWERS



(57) Abstract: A packaging assembly (10) for shipping flowers (1) comprising: a first inner container (12) having a bottom (14) and side walls (16, 18, 20, 22); a lining of water light shock material, preferably in form of plastic bag (13), placed within the first container (12); a second, outer container (32) having a top (42a, 42b) and side walls (36, 38, 40, 42c) is provided, configured to conveniently receive therein the first container (12). A flap (44a, 44b, 44c, 44d) located on the side walls (36, 40) of the outer container (32), corresponding to two cut-openings (24, 26) formed on opposite walls (18, 22) of the inner container (12), are used for releasably fastening the second container (32) to the first container (12) so that in the operative shipping state, the packaging (10) can be maneuvered by tilting the outer container (32), whereas at destination the outer container (32) can be separated from the inner container (12) by releasing the flaps (44a, 44b, 44c, 44d) and lifting the outer container (32) above and away from the inner container (12).

WO 03/037751 A1



(84) Designated States (regional): ARIPO patent (GH, GM, KH, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EP, ES, FI, FR, GB, GR, HU, IL, IT, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:  
with international search report

(48) Date of publication of this corrected version:  
4 September 2003

(15) Information about Correction:  
see PCT Gazette No. 30/2003 of 4 September 2003, Section B

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette